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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VU, THONG H	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/960,623	BALDONADO ET AL.	
	Examiner	Art Unit	
	Thong H. Vu	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/06; 1/06*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-23 are pending.

2. This application claimed benefit of 60/241,450 filed 10/17/2000.

Response to Arguments

3. Applicant's arguments filed 5/02/06 have been fully considered but they are not persuasive to over comer the prior art.

Applicant argues the prior art does not teach or suggest :

a. "a plurality of routing intelligent units" or "decision makers" (i.e.: function in optimized way, see specification,0022);

b. "performing routing information";

c. "exchanging a plurality of routing parameters";

d. "concurrently asserting routers";

e. "dedicated mesh" [only in claim 14].

Examiner point outs:

a. The prior art taught a plurality of Autonomous system, each system contains a collection of subnets [Ahuja, AS, col 1 lines 30-67] or a plurality of routers [Ahuja, Fig 19]; routing optimization component [Ahuja, col 11 lines 50-col 12 line 36].

b. The prior art taught a plurality of Autonomous system or a plurality of routers which are optimizing routing or intelligent routing [Ahuja, Routing Optimization component, col 11 line 50-col 12 line 36].

c. The prior art taught the protocol used to exchange the path or routing information or parameters between Border Gateways [Ahuja, col 1 line 63-col 2 line 10].

d. The prior art taught the system performs the optimizing routing by a parallel processing [Ahuja, col 16 lines 37-40] or concurrently asserting routes.

e. The prior art taught the plurality of optimizing or intelligent routers have the amount of shared topology and adding topology or performing routing traffic with any path [Ahuja, col 3 lines 21-35]. It was clear that the mesh topology is one of the network topology which shared information.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-23 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. i.e.: the dedicated mesh is not defined in specification. Examiner can not understand the applicant meaning the dedicated mesh wherein the mesh means not in order and the dedicate means determine, organize, order. According to the prior art, the network topologies includes: Ethernet, Token ring, Star and Mesh. There no such thing as dedicated mesh. Examiner assumed the mesh topology is one of topologies or any path which handled by the routers.

Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility.

e.g.: a dedicated mesh is not defined in specification.

Claims 1-23 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial

asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

It reminds applicant that the invention should provide a useful, concrete and tangible result to be patentability.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1-23 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-22 of copending Application No. 09/923,924. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

('924) 1. A method of routing a data flow traversing one or more routers in an internetwork, wherein the one or more routers are coupled to a plurality of service provider access links, the method comprising:
determining a prefix (i.e.: preseleted information) for the data flow;
calculating a plurality of performance scores for the plurality of service provider access links, each of the plurality of performance scores indicating performance of a route from a router of the one or more routers to the prefix via a distinct service provider access link from the plurality of service provider access links;
detecting a current service provider access link for the prefix, the current service provider access link corresponding to a current route to the prefix specified by a routing protocol, the current service provider access link having a performance score from the plurality of service provider access links; and
selecting a new service provider access link from the plurality of service provider access links for routing the data flow to the prefix, wherein the new server provider access link has a performance score from the plurality of performance scores superior to the performance score for the current service provider access link.

(Application) 1. A communications back-channel for coordinating routing decisions, the communications back channel comprising:
a plurality of networking devices;
a plurality of routing intelligence units wherein each of the plurality of the plurality of routing intelligence units includes software for controlling a distinct subset of the plurality of networking devices (i.e.: configure or calculate the prefix via a distinct service provider), each of the plurality of routing intelligence units further including:
one processes for controlling the distinct subset of networking devices (i.e: detecting the current service link for prefix specified by router configuration); and
one coordination processes for exchanging routing performance information with the plurality of routing intelligence units (i.e.: selecting a new service provider access link from the plurality of service provider access links for routing the data flow to the prefix).

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13,23 are rejected under 35 U.S.C. 102(e) as anticipated by Ahuja et al [Ahuja, 6,981,055 B1].

6. As per claim 1, Ahuja discloses A communications back-channel (i.e.: back end), for coordinating routing decisions, the communications back channel comprising:

a plurality of networking devices [Ahuja, clusters, col 6 lines 39-56; routers, switches, Fig 18];

a plurality of routing intelligence units (i.e.: intelligent disk systems), wherein each of the plurality of the plurality of routing intelligence units includes software for controlling a distinct subset of the plurality of networking devices [Ahuja, routers, switches, Fig 18; intelligent disk systems, intelligent selection among devices, col 19 line 35-col 20 line 25], each of the plurality of routing intelligence units further including:

one processes for controlling the distinct subset of networking devices [Ahuja, subsystem, col 17 lines 1-30]; and

one coordination processes for exchanging routing performance information with the plurality of routing intelligence units [Ahuja, traffic exchanges between the NSPs, col 18 lines 10-26].

7. As per claim 2, Ahuja discloses the one or more processes for controlling the distinct subset of networking devices are Border Gateway Protocol (BGP) sessions [Ahuja, BGP, Fig 2].

8. As per claim 3, Ahuja discloses each of the routing intelligence units is a route-reflector client [Ahuja, a route reflector, col 17 lines 9-37].

9. As per claim 4, Ahuja discloses each of the distinct subset of networking devices is a route reflector to the route reflector client [Ahuja, a route reflector, col 17 lines 9-37].

10. As per claim 5, Ahuja discloses the one or more coordination process in each of the routing intelligence units includes BGP sessions [Ahuja, BGP, Fig 2].

11. As per claim 6, Ahuja discloses the BGP sessions in the one or more coordination processes of each of the routing intelligence units includes: at least one BGP process; and at least one BGP stack, such that the at least one BGP stack exchanges routing parameters between the routing intelligence unit and the at least one BGP process, and the at least one BGP process exchanges routing parameters with the

plurality of routing intelligence units [Ahuja, BGP format and policy, col 18 lines 27-67].

12. As per claim 7, Ahuja discloses the at least one BGP stack is a route reflector client, and the at least one BGP process is a route reflector [Ahuja, a route reflector, col 17 lines 9-37].

13. As per claim 8, Ahuja discloses the routing performance information includes local path performance characteristics [Ahuja, performance monitor and measurements, col 6 lines 12-col 7 line 13].

14. As per claim 9, Ahuja discloses the routing performance information includes performance scores for routes [Ahuja, monitoring performance and other characteristics, col 8 lines 42-63].

15. As per claim 10, Ahuja discloses the performance scores are exchanged via a Local Preference field [Ahuja, exchange the path or routing information or parameters between Border Gateways, col 1 line 63-col 2 line 10].

16. As per claim 11, Ahuja discloses a plurality of communication links directly coupling the plurality of routing intelligence units [Ahuja, directly connected, col 12 lines 49-60], wherein the plurality of communication links are dedicated exclusively for exchanging routing parameters between the plurality of routing intelligence units [Ahuja,

shared topology, col 9 lines 39-62].

17. As per claim 12, Ahuja discloses the plurality of communication links are at least partially comprised of physical links between the plurality of routing intelligence units [Ahuja, weight each performance measurement and the unmeasured performance, col 9 lines 1-18].

18. As per claim 13, Ahuja discloses the plurality of communication links are at least partially comprised of logical links between the plurality of routing intelligence units [Ahuja, BGP can be logically tied to each core router, col 18 lines 40-55].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14-22 are rejected under 35 U.S.C. 103(a) as obvious over Ahuja et al [Ahuja, 6,981,055 B1] in view of Napolitano et al [Napolitano 6,826613 B1].

19. As per claim 14, Ahuja discloses A method of exchanging routing parameters amongst a plurality of decision makers (i.e.: routers), each decision maker controlling a distinct subset of a plurality of routers, the method comprising:

asserting a first plurality of preferred routes for a first plurality of prefixes to the subset of routers [Ahuja, the BGP, Fig 2; performance inference using prefixes to measure the number of subnetworks, col 7 lines 15-35];

concurrent with the asserting the first plurality of preferred routes [Ahuja, parallel or concurrent asserting the first plurality of preferred routes, col 16 lines 37-54], sending a plurality of local performance scores generated from performance measurements for the first plurality of routes to the plurality of decision makers;

However Ahuja does not explicitly detail the plurality of decision makers are in communication via a mesh topology or a dedicated mesh;

In the same endeavor, Napolitano discloses the routing method on the network with a plurality of nodes using the parallel processing named Lamba as a plurality of decision makers [Napolitano, col 4 line 60-col 6 line 37] in communication via the mesh pattern, mesh network [Napolitano, col 4 lines 25-55]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the routing between the plurality of parallel processing nodes via a mesh network as taught by Napolitano into the Ahuja's apparatus in order to utilize the routing process. Doing so would optimize network resource location and provide the updated routing information to direct traffic over Internet.

20. As per claim 15, Ahuja-Napolitano disclose receiving a second plurality of routes for a second plurality of prefixes via the dedicated mesh [Ahuja, prefixes, col 7 lines 15-

35].

21. As per claims 16,18 Ahuja-Napolitano disclose receiving a plurality of performance scores for the second plurality of routes [Ahuja, performance and other characteristics, col 8 lines 42-63].

22. As per claim 17, Ahuja-Napolitano disclose the plurality of performance scores are included in one or more Local Preferences fields in a BGP feed [Ahuja, performance and other characteristics, col 8 lines 42-63].

23. As per claim 19, Ahuja-Napolitano disclose the asserting the first plurality of preferred routes is performed via a BGP feed to the subset of routers [Ahuja, the BGP, Fig 2; performance inference using prefixes to measure the number of subnetworks, col 7 lines 15-35].

24. As per claim 20, Ahuja-Napolitano disclose the plurality of local performance scores are sent via a BGP feed to the dedicated mesh [Napolitano, mesh pattern, mesh network, col 4 lines 25-55, Fig 2A].

25. As per claim 21, Napolitano-Ahuja disclose the plurality of communication links are at least partially comprised of physical links between the plurality of routing intelligence units [Napolitano, mesh pattern, mesh network, col 4 lines 25-55, Fig 2A].

26. As per claim 22, Napolitano-Ahuja disclose the plurality of communication links are at least partially comprised of logical links between the plurality of routing intelligence units [Ahuja, BGP can be logically tied to each core router, col 18 lines 40-55].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 6:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 571-273-8300

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Thong Vu
Primary Examiner
Art Unit 2142